Final Report

NASA GSFC Project Title:	Potential Greenhouse Effects on Ice Sheets: Measurement of Elevation Changes, and Modeling
Grant No. and Amount:	NAG 5-1748, $38,991
Time Period:	15 August 1991 - 14 February 1993
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Summary of Results

This grant was used to support completion of work initiated at NASA Goddard Space Flight Center (GSFC), as a component of NASA project *Detection of Greenhouse Effects on Polar Ice Sheets,* Principal Investigator H.J. Zwally, Co-Investigators R.A. Bindschadler and C.S. Lingle (funded from NRA-88-OSSA-11). NAG 5-1748 resulted in the following publications; three copies of each are enclosed.

Lingle, C.S., A.C. Brenner, H.J. Zwally, and J.P. Dimarzio. 1991. Multiyear elevation changes near the west margin of the Greenland ice sheet from satellite radar altimetry. In: *Proceedings of the International Conference on the Role of the Polar Regions in Global Change,* edited by G.Weller, C.L. Wilson, and B.A.B. Severin. Vol. I, pp. 35-42, University of Alaska Fairbanks.

Fastook, J.L., and C.S. Lingle. 1991. A flow band model of the Amery Ice Shelf, Antarctica: Effects of flow dynamics and basal balance on temperatures (abstract). Paper presented verbally by C.S.L. at fall meeting of American Geophysical Union, 9-13 December 1991, in San Francisco. *Eos, Fall Meeting Supplement,* Vol. 72, no. 44, p. 151, paper H11D-10.

Herzfeld, U.C., C.S. Lingle, and L.-h. Lee. 1993. Geostatistical evaluation of satellite radar altimetry for high-resolution mapping of Lambert Glacier, Antarctica. *Annals of Glaciology,* Vol 17, pp. 77-85.

Grant NAG 5-1748 also served as partial support for preliminary work on NASA research project NAGW-2614, which has resulted—to date—in two publications in *Annals of Glaciology,* Vol. 20, 1994 (not included with this final report).